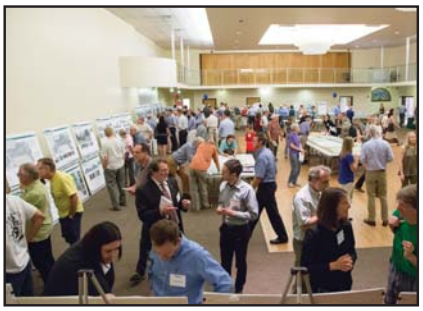
Meeting agenda

- **5:00 to 5:30 p.m.**
  Meeting begins with open house format
- **5:30 to 6:00 p.m.**
  Short presentation
- **6:00 to 6:30 p.m.**
  Facilitated question and answer session
- **6:30 to 7:30 p.m.**
  Open house format, time for one-on-one discussion with technical staff
- **7:30 p.m.**
  Meeting adjourns

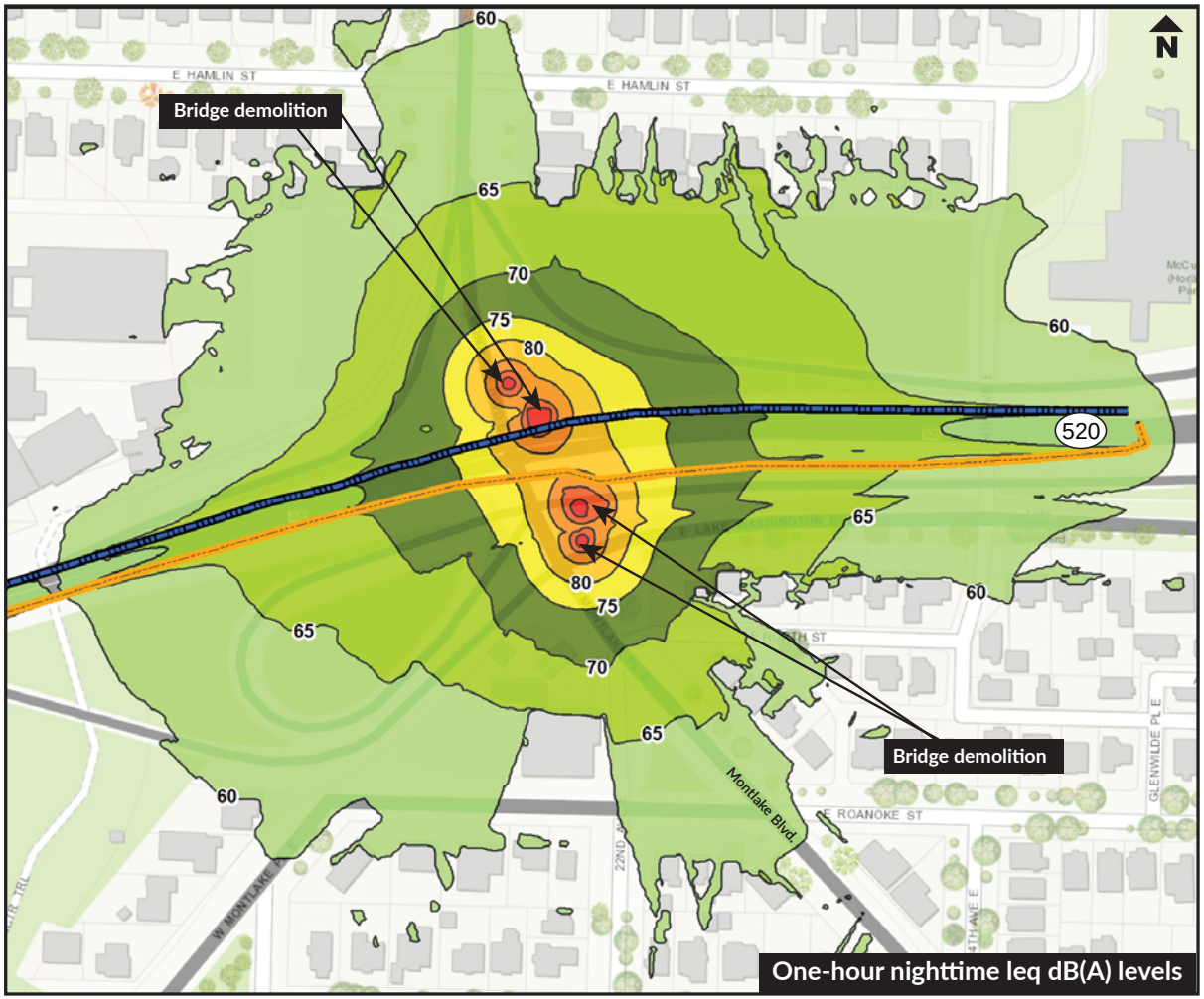

Washington State Department of Transportation

FEBRUARY 2017

SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

Nighttime noise-level contours: Demolition of existing Montlake Boulevard bridge

Without use of impact hammer



Legend

- Construction Trucks In
- Construction Trucks Out

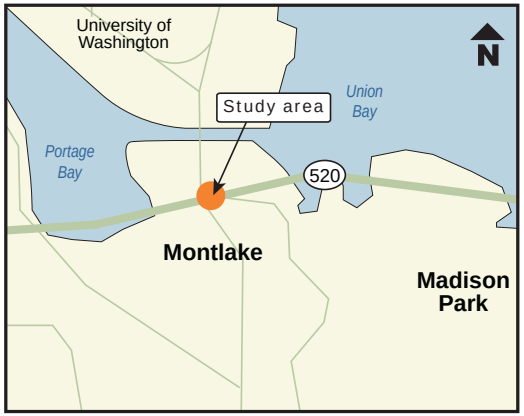
One Hour Leq Contours (Ground Floor)

- > 60 dBA
- 60 to 65 dBA
- 65 to 70 dBA
- 70 to 75 dBA
- 75 to 80 dBA
- 80 to 85 dBA
- 85 to 90 dBA
- 90 to 95 dBA
- > 95 dBA

Types of construction equipment include:

- Compressors
- Concrete pumps
- Excavators with thumb
- Hydraulic cranes
- Loaders

Locator map



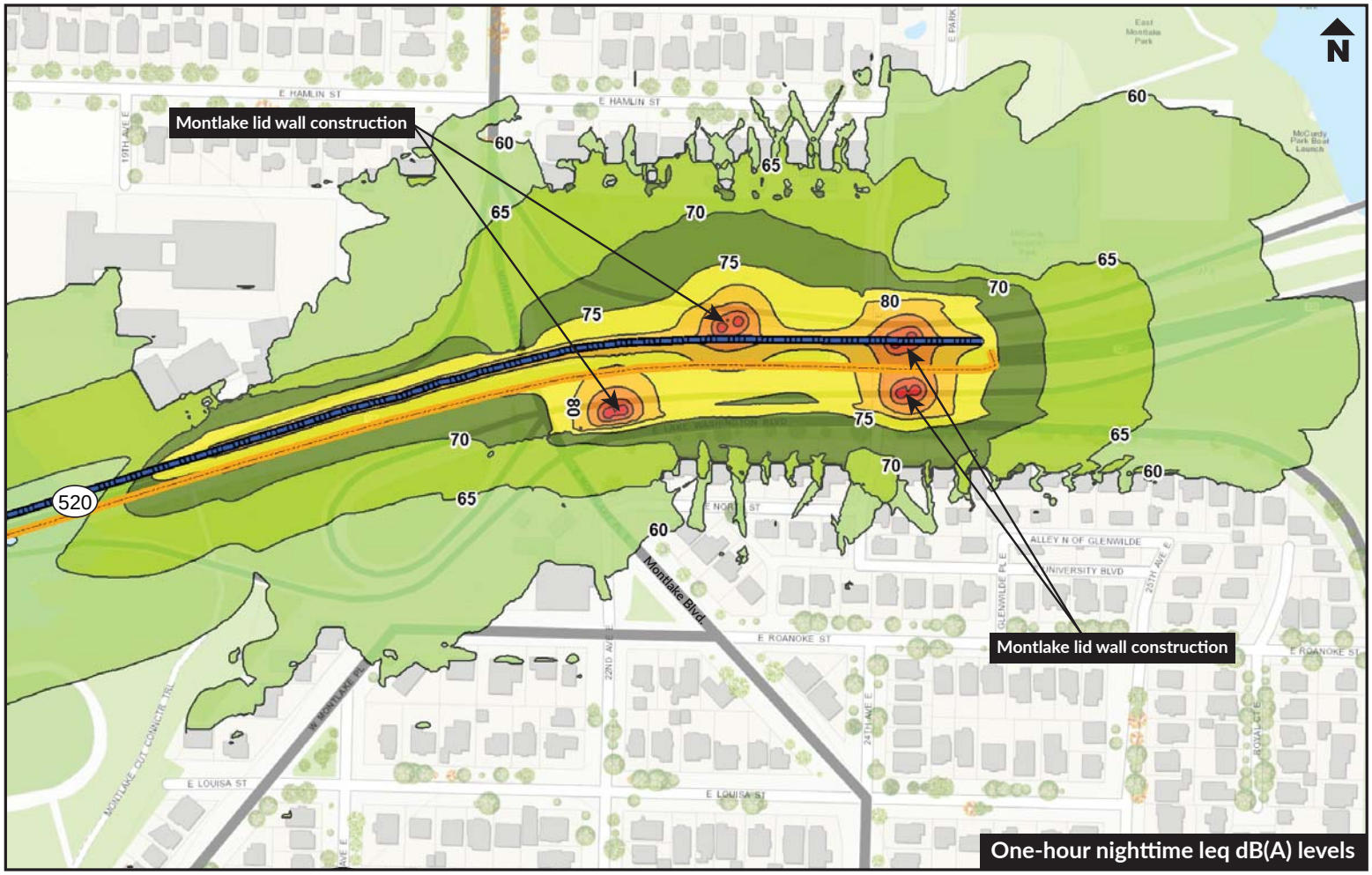
Final construction activities and locations subject to change based on final plans submitted by future design-build contractor.

Washington State Department of Transportation

FEBRUARY 2017

SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

Nighttime noise-level contours: Construction of Montlake lid walls



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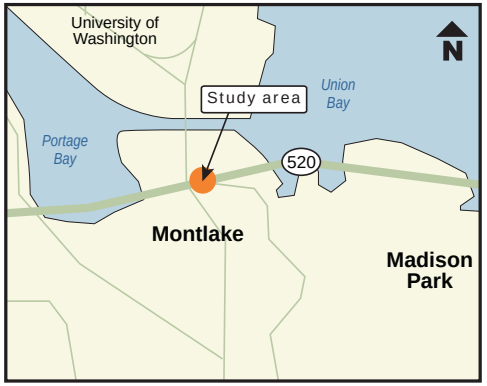
Locator map



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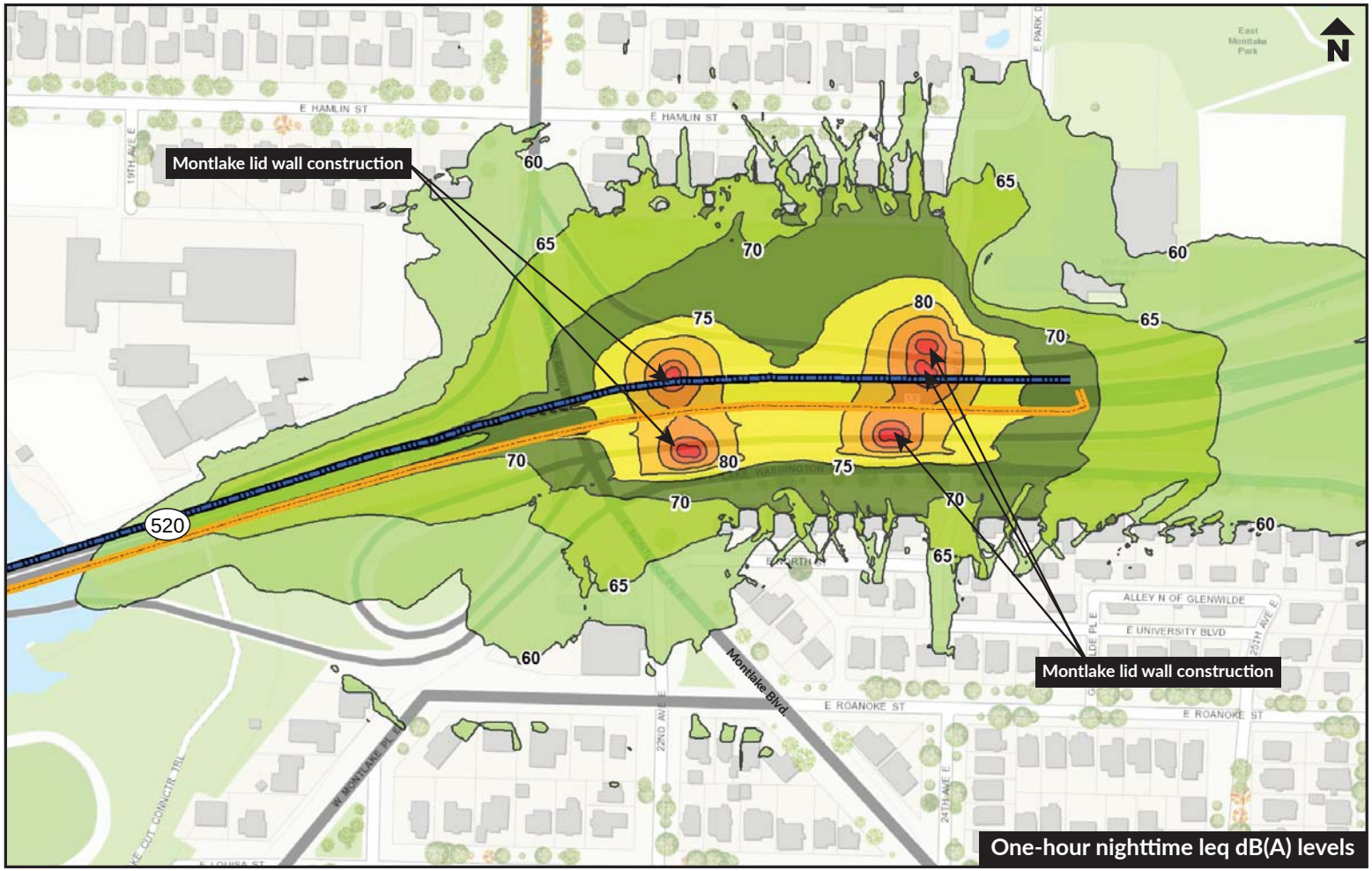
Washington State Department of Transportation

FEBRUARY 2017

SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

STATE ROUTE 520

Nighttime noise-level contours: Construction of Montlake lid walls



Legend

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Construction Trucks Out

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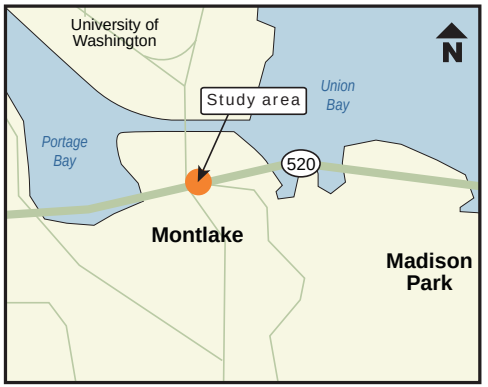
Types of construction equipment include:

- Compressors
- Concrete pumps
- Excavators with thumb
- Hydraulic cranes
- Loaders

Locator map



Final construction activities and locations subject to change based on final plans submitted by future design-build contractor.

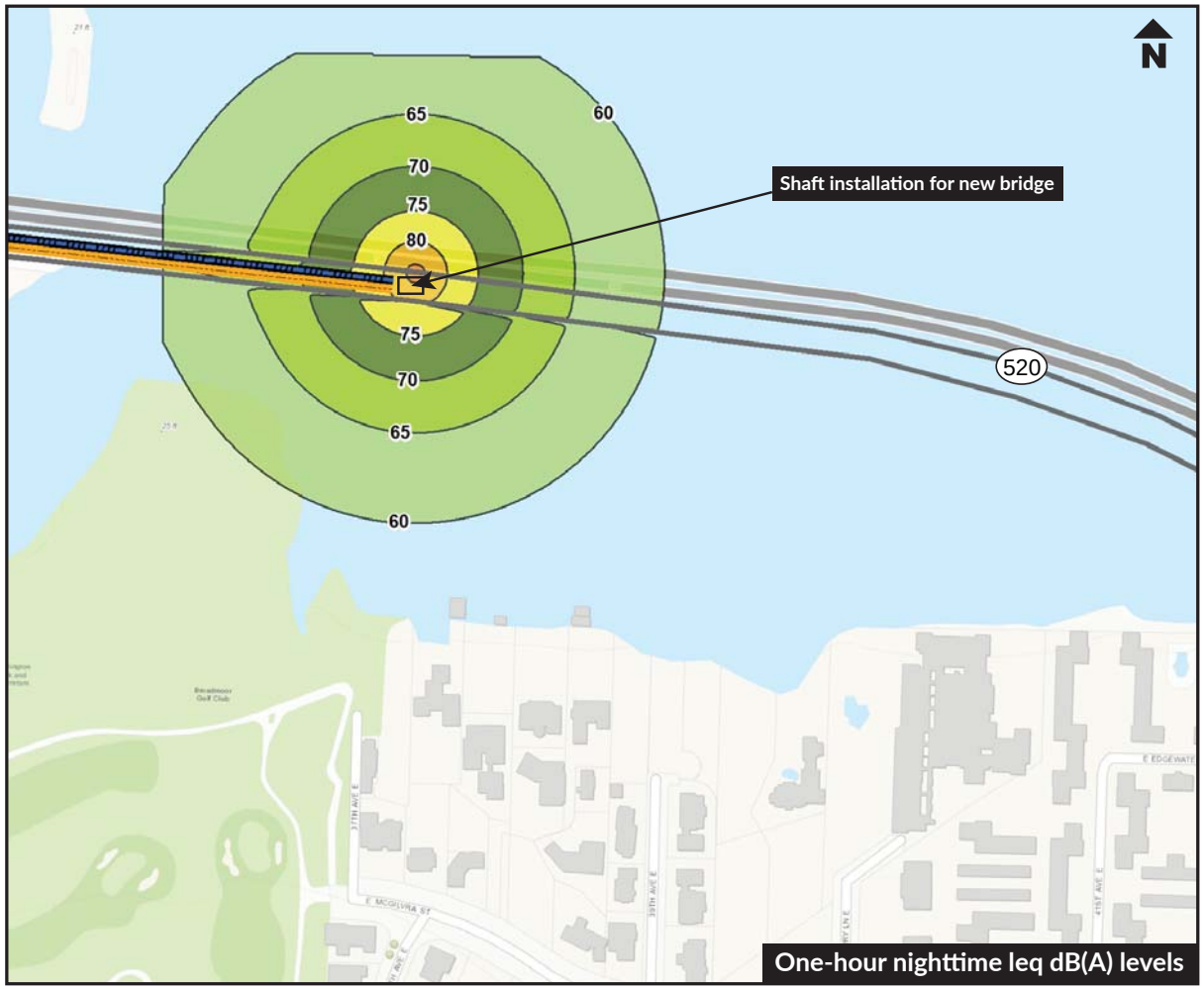
Washington State Department of Transportation

FEBRUARY 2017

SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

Nighttime noise-level contours: West Approach Bridge South shaft installation

With use of vibratory pile installation



Legend

Construction Trucks In

Construction Trucks Out

One Hour Leq Contours (Ground Floor)

> 60 dBA

60 to 65 dBA

65 to 70 dBA

70 to 75 dBA

75 to 80 dBA

80 to 85 dBA

85 to 90 dBA

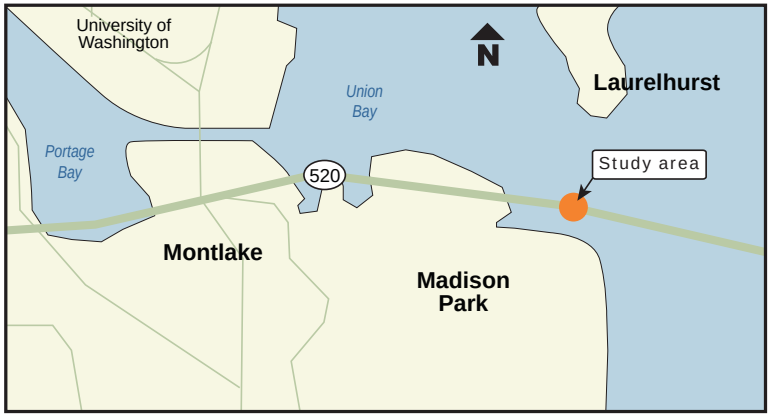
90 to 95 dBA

> 95 dBA

Types of construction equipment include:

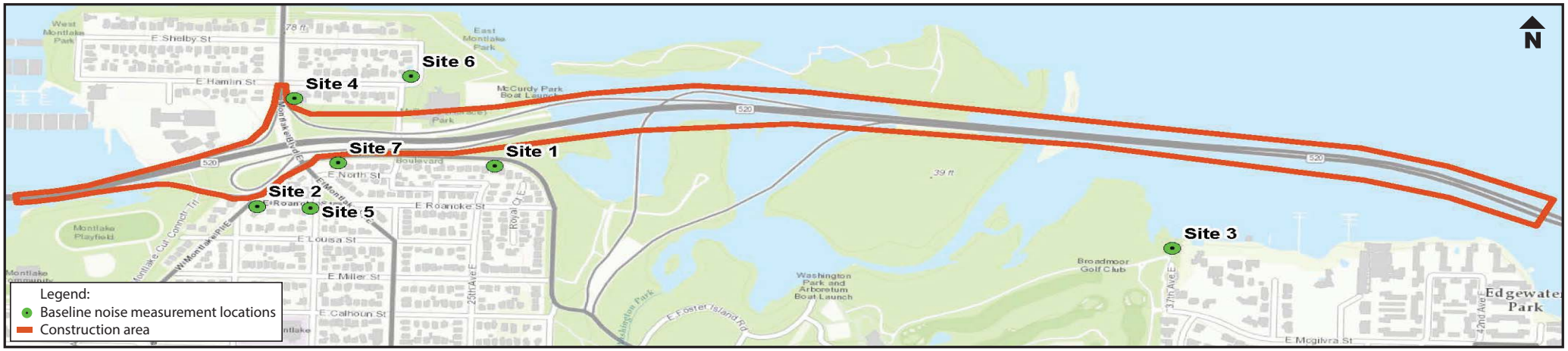
- Concrete pumps
- Diesel generators
- Drill rigs
- Vibratory pile installers
- Welders
- Loaders
- Crawler cranes

Locator map



Final construction activities and locations subject to change based on final plans submitted by future design-build contractor.

Proposed nighttime noise limits



Site	Current hourly average (or L_{eq})	Proposed hourly average (or L_{eq})	Current range of sound maximums (or L_{max})	Proposed sound maximum limit (or L_1)
1	61	67	71.2 to 82.5	80
2	72	78	72.4 to 89.3	80
3	56	62	55.3 to 77.5	80
4	60	66	74.5 to 94.3	80
5	59	65	45.3 to 90.1	80
6	57	63	52.7 to 92.0	80
7	60	66	70.2 to 91.8	80

Note: Data shown in table is measured in A-weighted decibels (dBA).

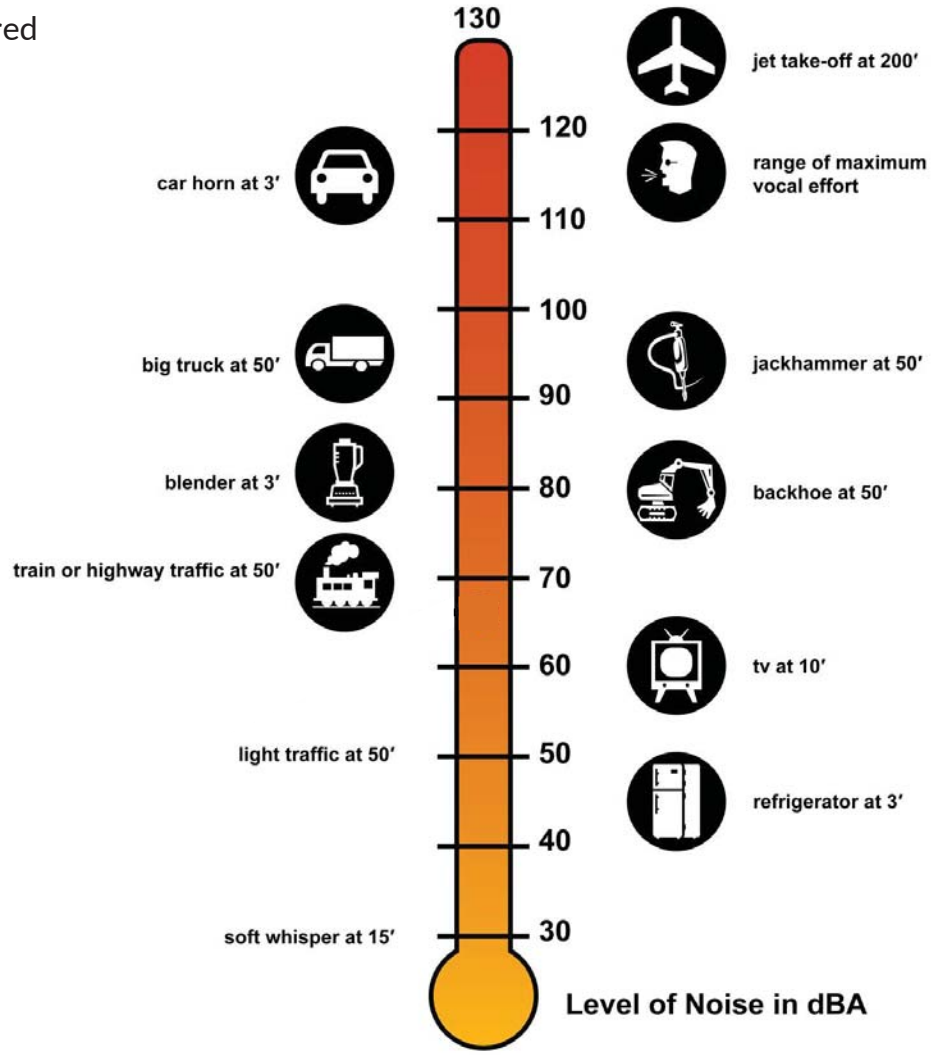
- Sound levels measured during the late night hours (midnight to 5 a.m.) provide the most conservative representation of existing baseline conditions. Noise measurement sites were selected based on their proximity to construction activities.
- Proposed variance sound limits are based on current conditions and typical city of Seattle nighttime noise limits.

Noise and sound: How do we hear it?

- Sound is created when objects vibrate, resulting in a minute variation in surrounding atmospheric pressure, called sound pressure. Sound is measured in units called A-weighted decibels (dBA). A-weighted decibels reflect how people perceive sound.
- An average person's ear can barely perceive a 3 dBA change in noise levels.
- Noise is defined as unwanted or unpleasant sound.

Typical construction equipment noise level

Equipment Type	Typical Noise Level (dBA) at 50 Feet
Hydraulic Crane	88
Crawler Crane	83
Concrete Pump	82
Compressor	81
Trucks (including Concrete, Dump & Debris Trucks)	88
Vibratory Pile Installer	96
Welder	82
Diesel Generator	81
Excavators with crusher	96
Loader	85
Excavators with thumb	96
Drill Rig	83



Types of Montlake Phase construction activities

The Montlake Phase will be a design-build contract. The table below, developed by WSDOT, shows likely construction activities and possible durations for this work. Final construction activities and time frames are subject to change based on final plans submitted by the future design-build contractor.

SR 520 Montlake Phase construction activities and durations

Construction activity	Estimated construction duration (used to inform variance application)
Waterline installation	5 to 7 months
Demolition of existing Montlake Boulevard bridge	1 month
Demolition of existing 24th Avenue bridge	1 month
Demolition of existing West Approach Bridge South (WABS)	4 to 6 months
Temporary work bridge construction	5 to 7 months
Drilled shafts for WABS	12 to 16 months
Construct substructure and superstructure for WABS	14 to 20 months
Construction of Montlake lid	48 to 65 months
Traffic shifts	48 to 65 months
Utility relocation	48 to 65 months
Temporary shoring wall construction	48 to 65 months
West Approach Bridge North widening	48 to 65 months

Note: Estimated construction durations include daytime activities and nighttime work as required.

Excavators remove an SR 520 overpass.

West Approach Bridge North, in March 2016.

City of Seattle Major Public Project Construction Noise Variance (MPPCNV)

What is an MPPCNV?

- A variance granted by the city of Seattle.
- Defines nighttime noise limits for SR 520 Montlake Phase construction activities.
- Provides approval for construction activities to occur during nighttime hours within parameters permitted by the city of Seattle.

Why is WSDOT applying for an MPPCNV?

- WSDOT's contractor will need to conduct work during nighttime construction hours to avoid unacceptable traffic impacts to SR 520 and local streets.

Examples of bridge girders being delivered to the project site during the current West Approach Bridge North (WABN) project.

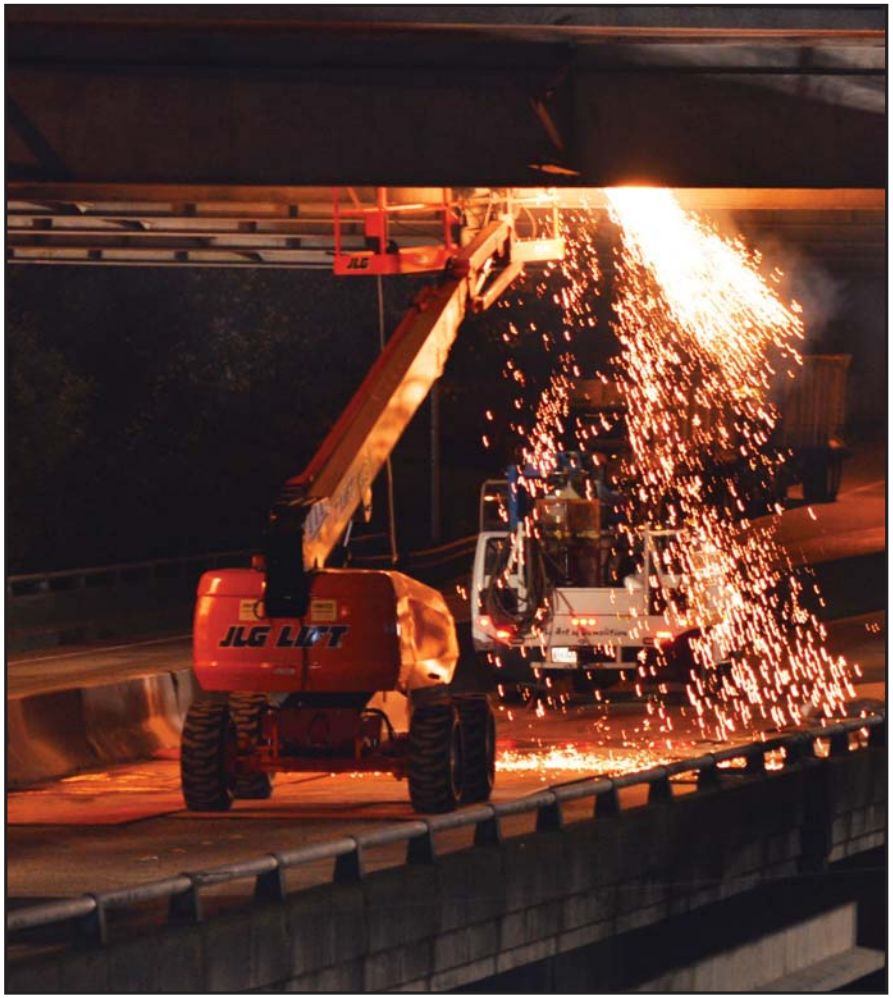
SR 520 nighttime construction work

Why is nighttime work necessary?

- SR 520 Montlake Phase construction during nighttime hours is necessary in order to:
  - Minimize closures of the SR 520 mainline and Montlake Boulevard East during the day.
  - Provide a safe work environment for the contractor and traveling public when needed.

When are nighttime work hours?

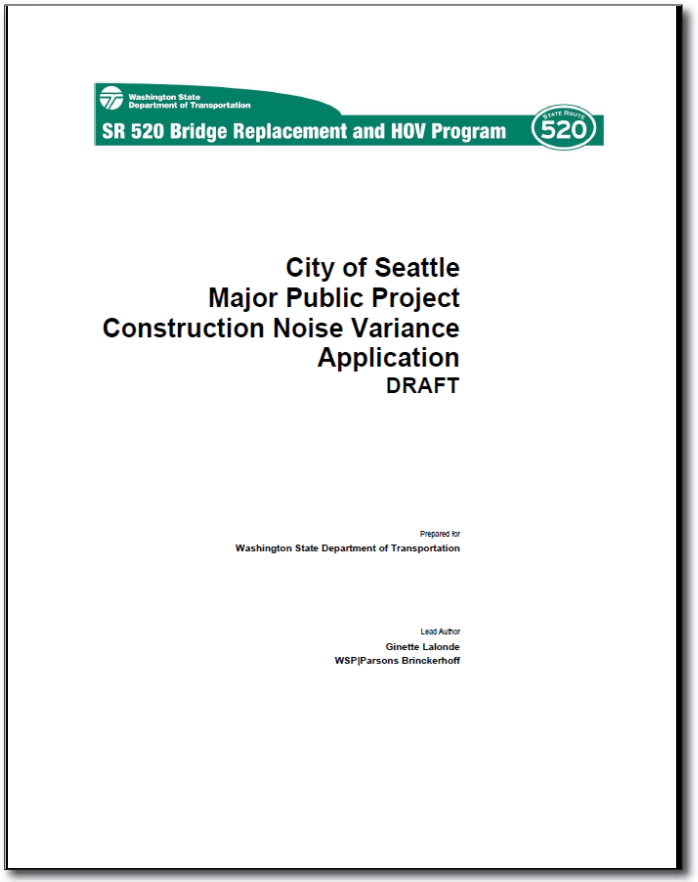
- Under city noise regulations, nighttime construction hours are 10 p.m. to 7 a.m. on weekdays, and 10 p.m. to 9 a.m. on weekends and legal holidays.



Example of nighttime construction activities along SR 520 during the current West Approach Bridge North (WABN) project.

What's included in WSDOT's application?

- Project descriptions and proposed construction activities.
- WSDOT's baseline noise measurements and proposed nighttime noise limits for the Montlake Phase.
- Noise Management and Mitigation Plan to be updated by design-build contractor.
- An overview of planned public outreach and process to resolve noise complaints during Montlake Phase construction.
- How WSDOT will monitor noise and how the design-builder will comply with MPPCNV requirements.



Washington State Department of Transportation

SR 520 Bridge Replacement and HOV Program

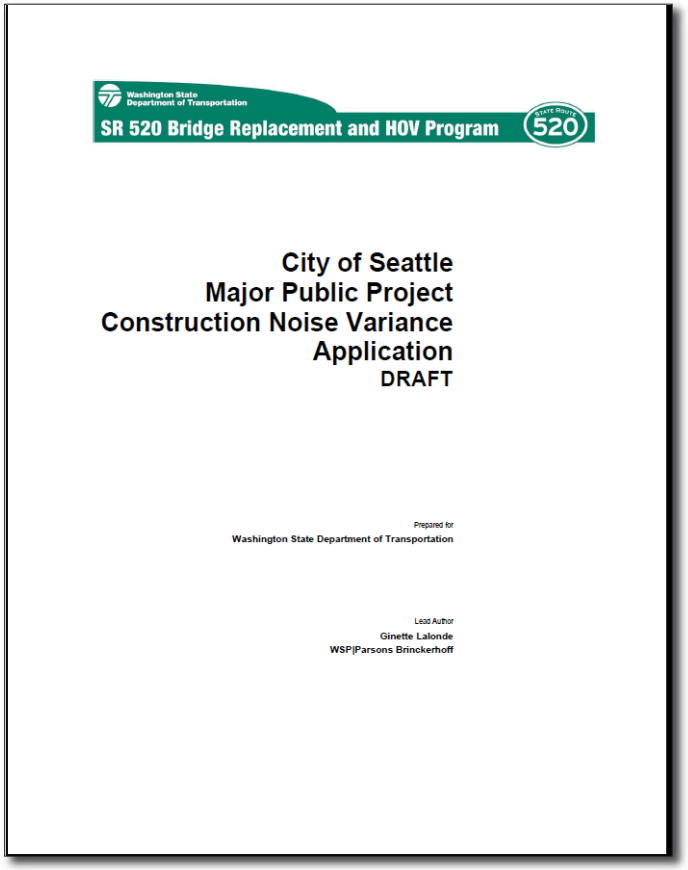
City of Seattle
Major Public Project
Construction Noise Variance
Application
DRAFT

Prepared for
Washington State Department of Transportation

Lead Author
Ginette Lalonde
WSP|Parsons Brinckerhoff

What does an MPPCNV provide?

- Sets the limit for nighttime noise levels and activities.
- WSDOT's application requests that within the project area:
  - A limit of six decibels higher than the current hourly averages.
  - A limit for maximum noise levels that is within the range of existing nighttime noise peaks.
  - Noise monitoring and compliance requirements and procedures.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Noise monitoring and compliance

- The design-build contractor will:
  - Prepare a noise-monitoring plan.
  - Install noise monitors on site.
  - Monitor noise continuously during nighttime construction activities.
- WSDOT will:
  - Provide a noise monitor staff person, reporting directly to SDCI.
  - Continue use of 24-hour construction hotline.
  - Continue WSDOT's comprehensive and ongoing public involvement activities.

Examples of noise monitor equipment.

MPPCNV application key steps

February 2017:

- ☑ WSDOT submits draft MPPCNV application to Seattle's Department of Construction and Inspections (SDCI).
- ☐ WSDOT hosts informational public meeting.

March 2017:

- ☐ WSDOT submits final MPPCNV application to SDCI.

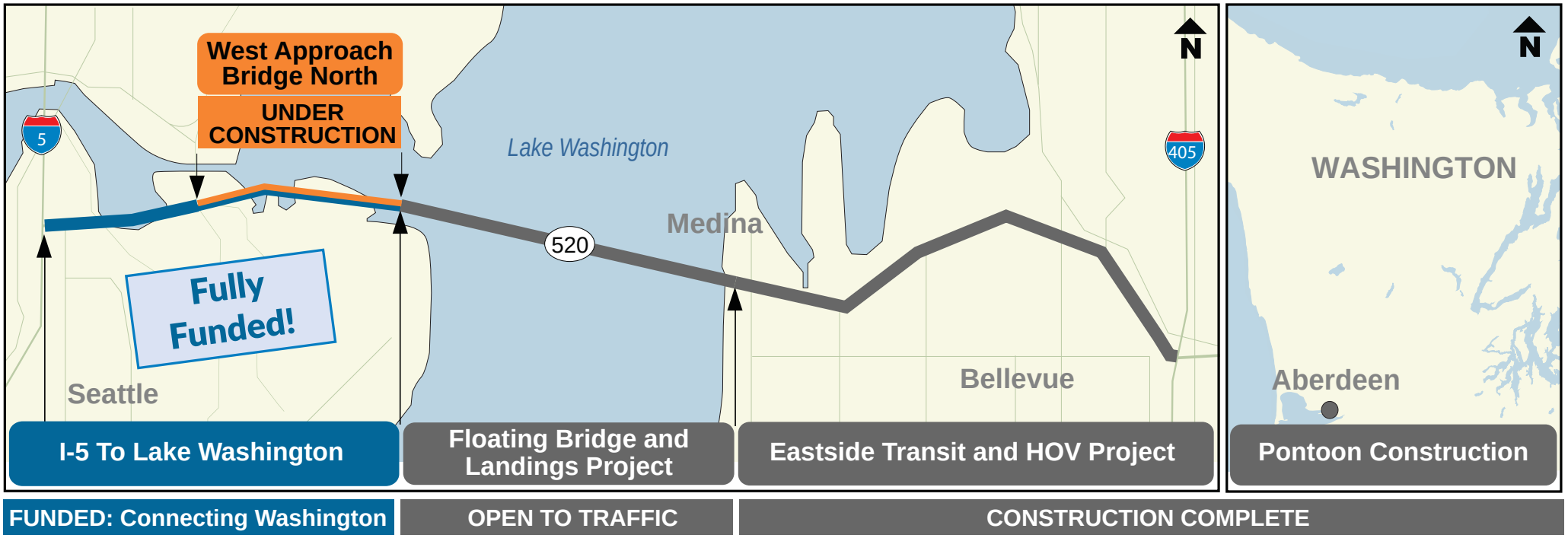
Spring 2017:

- ☐ SDCI publishes WSDOT's MPPCNV application online for public review.
- ☐ SDCI hosts a formal public hearing and comment period on WSDOT's MPPCNV application. Public notifications will be made through the City of Seattle Land Use Bulletin.
- ☐ WSDOT's goal: SDCI publishes decision on Montlake Phase MPPCNV and grants variance to WSDOT.
- ☐ 10-day appeal period begins when variance is issued.

2018:

- ☐ Selected SR 520 design-build contractor submits updated Noise Management and Mitigation Plan to SDCI.

SR 520 program map



Program schedule

- **Eastside Transit and HOV Project:** Opened 2014
- **Pontoon Construction Project (Aberdeen):** Completed 2015
- **New floating bridge:** Opened April 2016
- **West Approach Bridge North:** Opening summer 2017
- **Remaining west side corridor:** Fully funded, construction to begin in 2018

Washington State Department of Transportation

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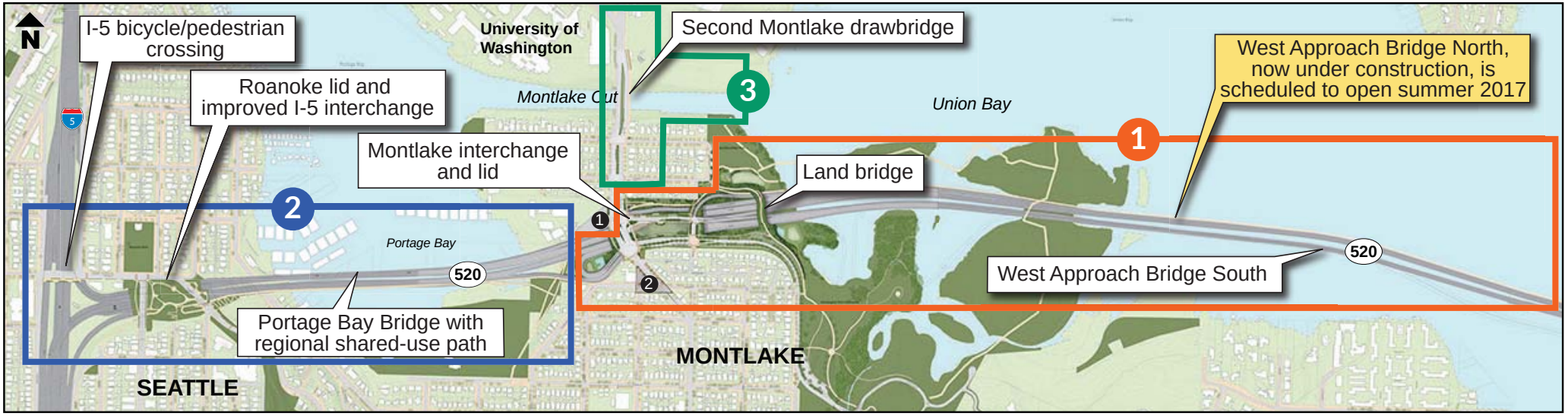
SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

Rest of the West overview

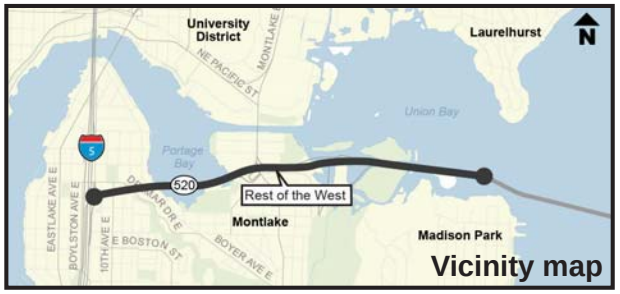
All remaining elements of the SR 520 Program from I-5 to Lake Washington, are now fully funded. These elements, known as the “Rest of the West” will build key safety and mobility improvements for the region, and reconnect local communities divided by the original construction of SR 520 in the 1960s. Below are the key elements of the Rest of the West, which will be built in three major phases. The next phase is scheduled to begin by 2018.



PHASE 1: Montlake Phase
Construction to begin in 2018
Estimated duration: 4-5 years

PHASE 2: Portage Bay Phase
Estimated to begin in approx. 2020-2022
Estimated duration: 6 years

PHASE 3: Montlake Cut Crossing Phase
Estimated to begin as early as 2024
Estimated duration: 3 years



Concepts and materials shown may be further refined pending outcomes of ongoing maintenance conversations between WSDOT, the City of Seattle, and King County Metro. For clarity, renderings do not show all utilities, transit infrastructure, and signage.

1. Possible future use of a portion of the NOAA property, approximating the area shown in the FEIS, for a public pedestrian-bike path is subject to agreement by NOAA as a part of ongoing mitigation discussion.
2. City-owned property under review by the City of Seattle.

Washington State Department of Transportation

FEBRUARY 2017

SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

SR 520 Montlake Phase: Project improvements in the Montlake area

Design shown at completion of the SR 520 Montlake Phase in approximately 2022-2023.

Concepts and materials shown may be further refined pending outcomes of ongoing maintenance conversations between WSDOT, the City of Seattle, and King County Metro. For clarity, renderings do not show all utilities, transit infrastructure, and signage.

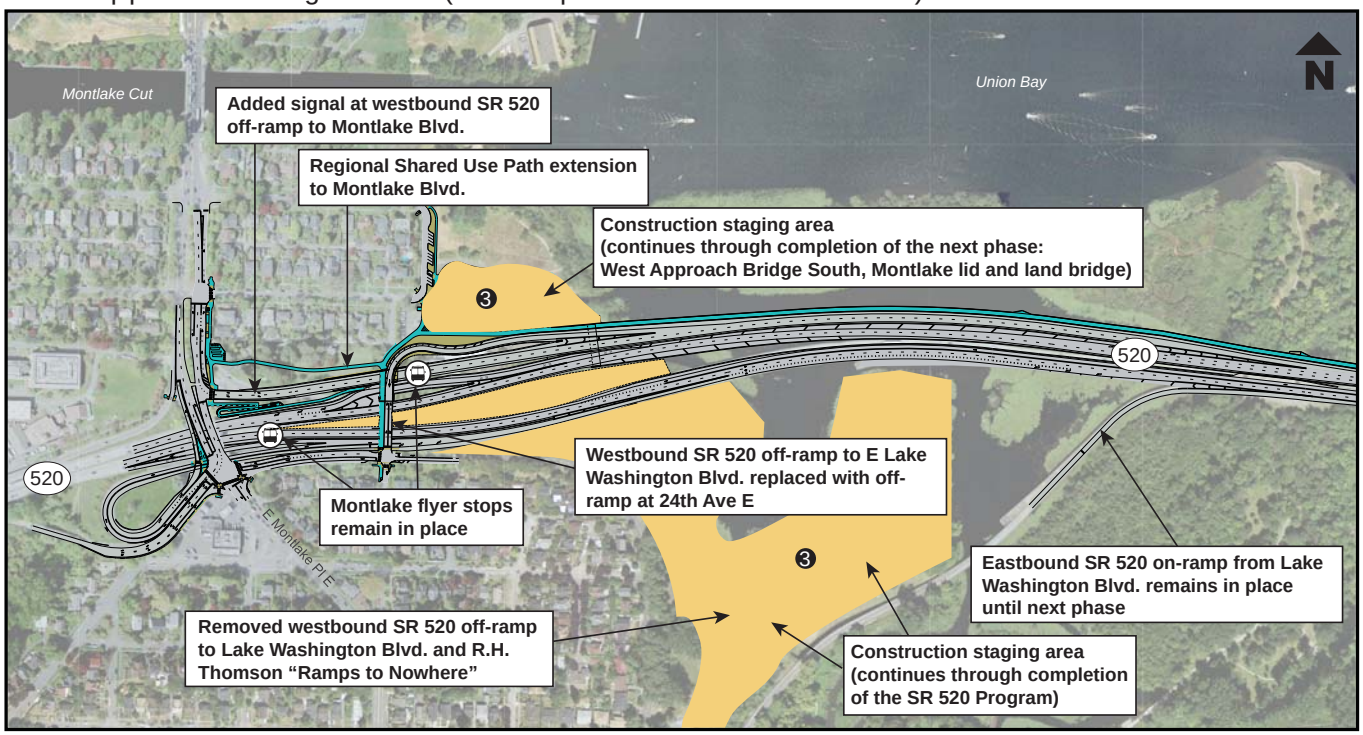
❶ Possible future use of a portion of the NOAA property, approximating the area shown in the FEIS, for a public pedestrian-bike path is subject to agreement by NOAA as a part of ongoing mitigation discussion.

❷ City-owned property under review with the City of Seattle.

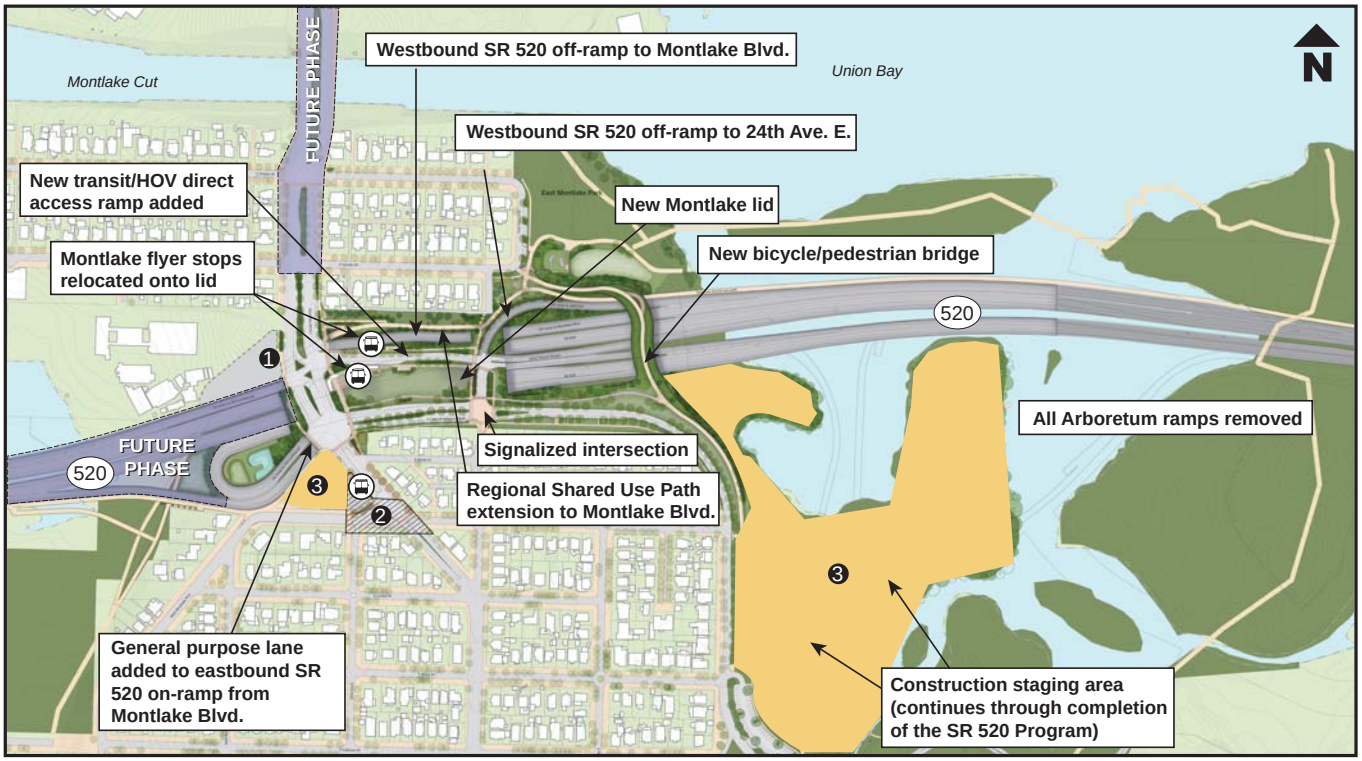
Building the Montlake area in phases

Key refinements to the Montlake area after the West Approach Bridge North (WABN) is complete (top) and the Montlake Phase is complete (bottom).

West Approach Bridge North (at completion in summer 2017)



Montlake Phase (construction expected to begin in 2018; shown at completion, estimated in 2022-2023)



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❷ City-owned property under review by the City of Seattle.

❸ Area needed for project improvements and construction staging and phasing.

Note: Construction schedules and staging areas are subject to change as design and construction plans are confirmed.